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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,235	05/25/2001	Hendrik Arend Visser	US018073	2625

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Philips Electronics
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EXAMINER

PHU, SANH D

ART UNIT

PAPER NUMBER

2682

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,235

Applicant(s)

VISSER, HENDRIK AREND

Examiner

Sanh D Phu

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The IDS filed 1/14/2003 has been considered and recorded in the file.

Claim Rejections – 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1–3,5–12,14–16,18 are rejected under 35 U.S.C. 102(b) as being anticipated by Minasi (5,789,995).

Regarding to claim 1, see Fig. 1, col.1, line to col. 2, line 12, Manasi discloses a transceiver for radio frequency signals, said transceiver comprising:
a transmit branch (TX, CR1, C1) that is coupled to an antenna feed point (col. 1, lines 23– 51);

a receive branch (RX, CR2, C2, L1, C1) comprising a first network (L1, C1) with an output node and with an input node that is coupled to said antenna feed point, said first network being configured such that in a transmit mode of said transceiver said input node is switched as an open circuit by switching said output node as a short circuit (see col. 1, lines 42–51).

Regarding to claim 2, Minasi discloses that the transceiver wherein said first network comprises a capacitor (C1) that is coupled between said input node and ground, an inductor (L1) that is coupled between said input node and said output node, and a first switch (CR1) that is coupled between said output node and said ground (see Fig. 1, col. 1, lines 10–22).

Regarding to claim 3, Minasi discloses that the transceiver wherein said first switch is MOS transistor (which is using FET transistor, see col. 1, lines 59–63).

Regarding to claim 5, Minasi discloses that the transceiver wherein said first network comprises a $1/4$ - λ transmission line that is coupled between said input node and said output node, and a second switch that is coupled between said output node and ground (see col. 1, lines 33–51).

Regarding to claim 6, Minasi discloses that the transceiver wherein said second switch is a Reed switch that is suitable to switch radio frequency signals (see col. 1, lines 10-51).

Regarding to claim 7, Minasi discloses that the transceiver wherein said transmit branch comprises a tank circuit, and a power transistor for providing a transmit power signal to said tank circuit when said transceiver is in said transmit mode, said tank circuit being directly connected to said antenna feed point, and said transceiver being configured to switch off said power transistor when said transceiver is in a receive mode (see col. 1, lines 23-67).

Regarding to claim 8, Minasi discloses that the transceiver wherein said transmit branch comprises a tank circuit, and a power transistor for providing a transmit power signal to said tank circuit when said transceiver is in said transmit mode, and a second switch that is coupled between said tank circuit and said antenna feed point, said transceiver being configured to open said second switch when said transceiver is in a receive mode (see col. 1, lines 23-67).

Regarding to claim 9, see Fig. 1, col.1, line to col. 2, line 12, Minasi discloses a transceiver for radio frequency signals, said transceiver comprising:

a transmit branch (TX, CR1, C1) that is coupled to an antenna feed point (col. 1, lines 23– 51);

a receive branch (RX, CR2, C2, L1, C1) comprising first network means (C1, L1) with an output node and with an input node that is coupled to said antenna feed point, said first network means being configured such that in a transmit mode of said transceiver said input node is switched as an open circuit by switching said output node as a short circuit (see col. 1, lines 42–51).

Regarding to claim 10, Minasi discloses that the transceiver wherein said first network means (C1, L1) comprises capacitive means (C1) and inductive means (L1), and first switch means (CR2) for coupling said output node to ground when said transceiver is in a transmit mode, thereby causing, through said capacitive means and said inductive means, said input node to become an open circuit (see col. 1, lines 42–51).

Regarding to claim 11, see Fig. 1, col.1, line to col. 2, line 12, Minasi discloses a radio frequency transceiver module for use in a transceiver, said radio frequency transceiver module comprising:

a transmit branch (TX, CR1, C1) that is coupled to an antenna feed point (col. 1, lines 23– 51);

a receive branch (RX, CR2, C2, L1, C1) comprising first network means (C1, L1) with an output node and with an input node that is coupled to said antenna feed point, said first network means being configured such that in a transmit mode of said radio frequency transceiver module said input node is switched as an open circuit by switching said output node as a short circuit (see col. 1, lines 42–51).

Regarding to claim 12, Minasi discloses that the radio frequency transceiver module wherein said first network means comprises capacitive means and inductive means, and first switch means for coupling said output node to ground when said radio frequency transceiver module is in a transmit mode, thereby causing, through said capacitive means and said inductive means, said input node to become an open circuit (see col. 1, lines 42–51).

Regarding to claim 14, Minasi discloses that the radio frequency transceiver module wherein said first network means comprises $1/4$ - λ transmission line means, and second switch means for coupling said output node to ground when said radio frequency transceiver module is in a transmit mode, thereby causing, through $1/4$ - λ transmission line means, said input node to become an open Circuit (see col. 1, lines 33–51).

Regarding to claim 15, see Fig. 1, col.1, line to col. 2, line 12, Minasi discloses an apparatus with a transceiver for radio frequency signals, said transceiver comprising:

a transmit branch (TX, CR1, C1) that is coupled to an antenna feed point (col. 1, lines 23– 51);

a receive branch (RX, CR2, C2, L1, C1) comprising a first network (L1, C1) with an output node and with an input node that is coupled to said antenna feed point, said first network being configured such that in a transmit mode of said transceiver said input node is switched as an open circuit by switching said output node as a short circuit (see col. 1, lines 42–51).

Regarding to claim 16, Minasi discloses that the apparatus wherein said first network comprises a capacitor (C1) that is coupled between said input node and ground, an inductor (L1) that is coupled between said input node and said output node, and a first switch (CR2) that is coupled between output node and said ground (see Fig. 1, col. 1, lines 10–22).

Regarding to claim 18, Minasi discloses that the apparatus wherein said first network comprises a $1/4$ - λ transmission line that is coupled between said input node and said output node, a second switch that is coupled between said output node and ground (see col. 1, lines 33–51).

Claim Rejections – 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4,13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minasi (5,789,995) in view of Macedo (6,586,993).

Regarding to claim 4,13 and 17, Minasi discloses that the apparatus wherein said receive branch comprises an amplifier (RX) that is coupled to said output node, and said first network (C1, L1) comprises a capacitor (C1) that is coupled between said input node and ground, an inductor (L1) that is coupled between said input node and said output node,

He does not disclose a second switch that is comprised in a feedback path of an input stage of the amplifier.

However, Macedo disclose a switch (16) that is comprised a feedback path of a RF-input signal of an amplifier (Q0) (see Fig. 1, col. 2, lines 20-33).

At the time of the invention, it would have been obvious for one skilled in the art to integrate the amplifier as taught by Macedo in order to control offset and gain of the amplifier so that it operates efficiently and stability. Therefore, it would have been obvious to combine Minasi with Macedo to obtain the invention as specified in the claim 4, 13 and 17.

Conclusion

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D Phu whose telephone number is (703) 305-8635. The examiner can normally be reached on 8:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-301-6739. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-8635.

Sanh D. Phu
Examiner
Art Unit 2682

SP


LEE NGUYEN
PRIMARY EXAMINER